12AV7

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MEDIUM-MU TWIN TRIODE

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater Arrangement	*Series*	*Parallel*	
Voltage	12.6	6.3	ac or dc volts
Current	0.225	0.45	amp

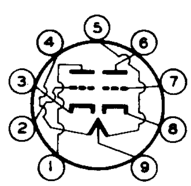
Direct Interelectrode Capacitances:

	Unit No.1	*Unit No.2*	
Without external shield:			
Grid to plate	1.9	1.9	μμf
Grid to cathode and heater.	3.1	3.1	μμf
Plate to cathode.	0.24	0.24	μμf
Plate to cathode and heater	0.5	0.4	μμf
Plate to grid and heater. .	2	2	μμf
Cathode to grid and heater.	6.9	6.9	μμf
Cathode to heater	3.8	3.8	μμf
With external shield, JETEC No.315, connected to cathode, except as noted:			
Grid to plate	1.9	1.9	μμf
Grid to cathode and heater.	3.2	3.2	μμf
Plate to cathode.	0.24	0.23	μμf
Plate to cathode and heater	1.3	1.6	μμf
Plate to grid, heater, and external shield	2.8	3.2	μμf
Cathode to grid, heater, and external shield . .	7	7	μμf
Heater to cathode	4	4	μμf

Mechanical:

Mounting Position . . . . Any
Maximum Overall Length . . . . 2-3/16"
Maximum Seated Length . . . . 1-15/16"
Maximum Diameter . . . . 7/8"
Bulb T-6-1/2
Base . . . . Small-Button Noval 9-Pin (JETEC No.E9-1)
Basing Designation for BOTTOM VIEW 9A

Pin 1 - Plate of Unit No.2
Pin 2 - Grid of Unit No.2
Pin 3 - Cathode of Unit No.2
Pins 4,9 - Heater of Unit No.2
Pins 5,9 - Heater of Unit No.1



Pin 6 - Plate of Unit No.1
Pin 7 - Grid of Unit No.1
Pin 8 - Cathode of Unit No.1
Pin 9 - Heater Mid-Tap

JUNE 14, 1954

TENTATIVE DATA

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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MEDIUM-MU TWIN TRIODE

AMPLIFIER - Class A_1

Values are for Each Unit

Maximum Ratings, *Design-Center Values:*

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Negative bias value	-50 max.	volts
PLATE DISSIPATION	2.7 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max.	volts
Heater positive with respect to cathode	90 max.	volts

Typical Operation and Characteristics:

Plate Supply Voltage	100	150	volts
Cathode-Bias Resistor	120	56	ohms
Amplification Factor	37	41	
Plate Resistance	6100	4800	ohms
Transconductance	6100	8500	μmhos
Plate Current	9	18	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-9	-12	volts

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